

PATENT APPLICATION

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GAS DISTRIBUTION SHOWERHEAD

DESCRIPTION OF REFERENCE NUMERALS ON THE DRAWINGS

10	100	apparatus for performing high temperature CVD
	102	wafer
	104	wafer support structure
	105	deposition chamber
	106	gas distribution showerhead
15	Y	showerhead-to-wafer gap
	108	process gas inlet
	110	blocker plate
	112	apertures
	114	gas distribution face plate
20	114a	backside of face plate 114
	116	holes
	118	layer of deposited material
	120	incoming process gas stream
	200	wafer
25	202	semiconductor structures
	204	STI structures
	300	apparatus for chemical vapor distribution
	302	wafer
	304	wafer support structure
30	306	deposition chamber
	308	gas distribution showerhead
	Y'	showerhead-to-wafer gap
	310	process gas inlet
	312	blocker plate
35	314	apertures

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DESCRIPTION OF REFERENCE NUMERALS ON THE DRAWINGS (CONT'D)

	316	gas distribution face plate
	316a	gas inlet side of gas distribution faceplate
	316b	gas outlet side of gas distribution faceplate
	318	aperture
5	318a	discrete hole
	318b	elongated slot
	L	length of elongated slot
	600	material deposited from the conventional holes
	602	material deposited through the elongated slots
10	650	composite showerhead
	652	first region
	654	conventional holes
	656	second region
	658	elongated slots
15	760	face plate outlet portion
	762	non-continuous slots
	764	face plate
	766	non-continuous slots
	768	face plate
20	770	slots
	772	face plate
	774	non-continuous slots
	776	conventional holes
	900	chemical vapor deposition apparatus
25	902	wafer
	904	wafer support structure
	906	deposition chamber

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DESCRIPTION OF REFERENCE NUMERALS ON THE DRAWINGS (CONT'D)

	908	gas distribution showerhead
	Y''	showerhead-to-wafer gap
	912	process gas inlet
	914	blocker plate
5	916	apertures
	918	gas distribution face plate
	918a	edge portion of face plate
	918b	center portion of face plate
	920	holes
10	A	taper angle
	1500	conventional gas distribution faceplate
	1500a	orifices
	1501	gas distribution faceplate
	1501a	inlet orifices
15	1502	blocker plate
	1502A	orifices
	1504	wafer
	1506	heater
	1510	gap
20	1512	film
	1599	region
	1800	faceplate
	1802	inlet orifice
	1804	outlet slot
25	1806	intermediate orifice portion
	f ₁	width
	L ₁	depth

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DESCRIPTION OF REFERENCE NUMERALS ON THE DRAWINGS (CONT'D)

f 3 width

L3 depth

f 2 width

L2 depth

5

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